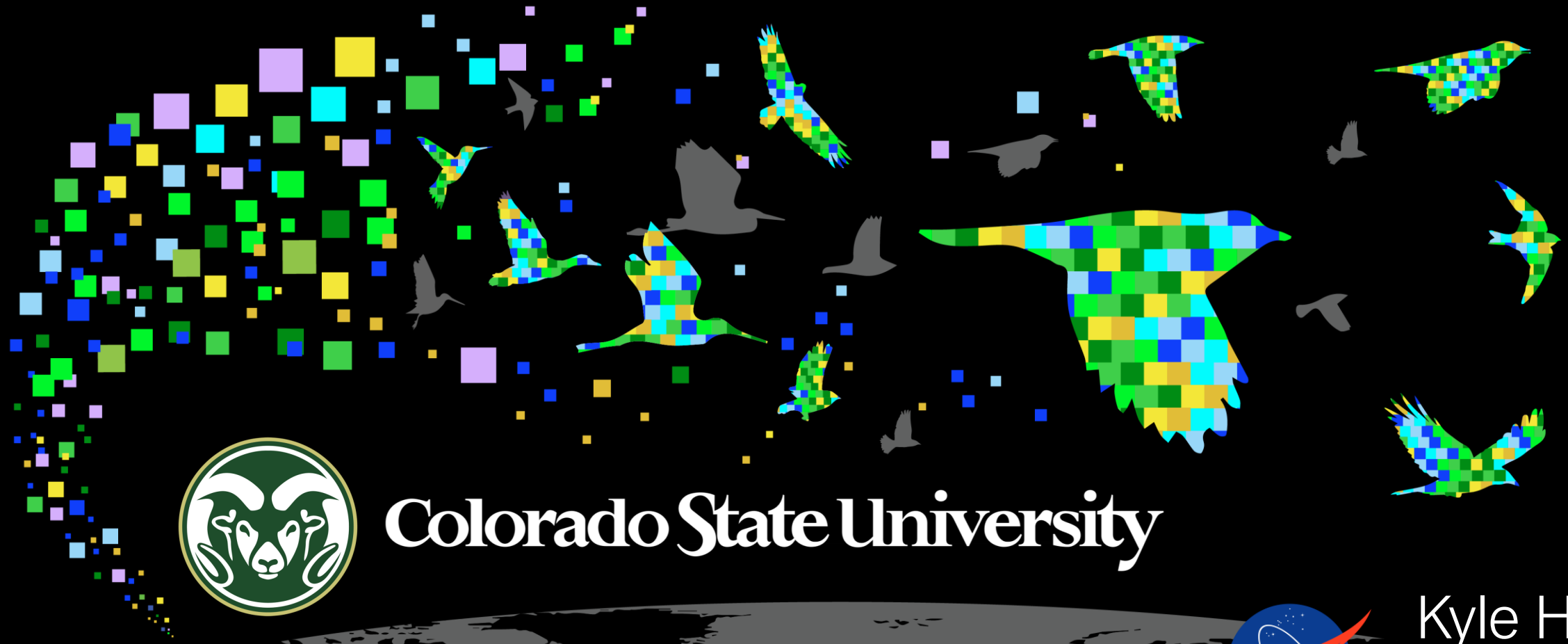
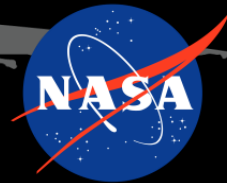


Aeroecology, an emerging ecological frontier



Colorado State University



Kyle Horton
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Outline

1. Building a pipeline for bird migration forecasts with enhanced resolution.
2. Using field measures for validation of weather surveillance radar.

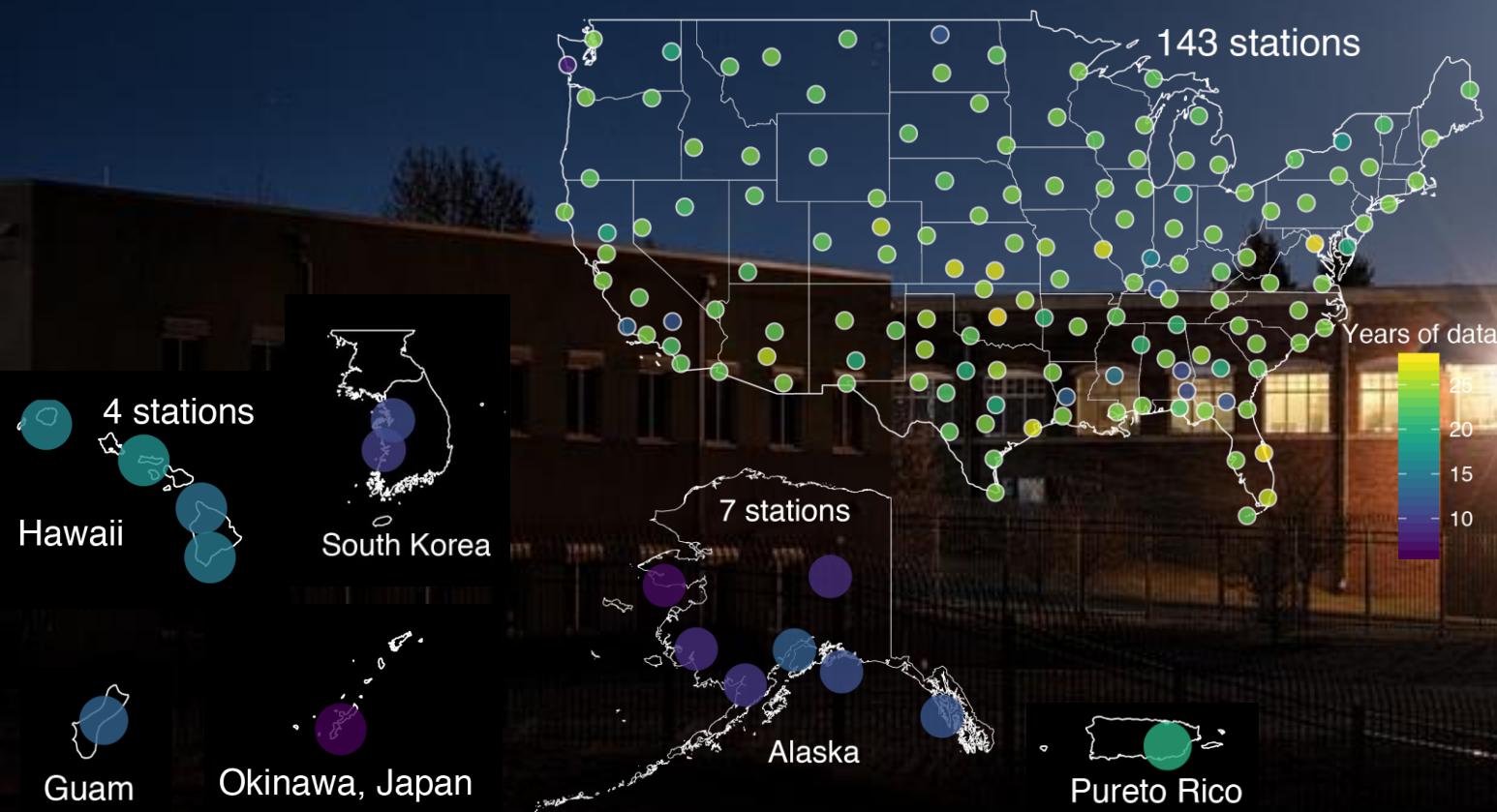


NEXRAD

Next Generation Radar

WSR-88D

Weather Surveillance Radar – 1988 – Doppler

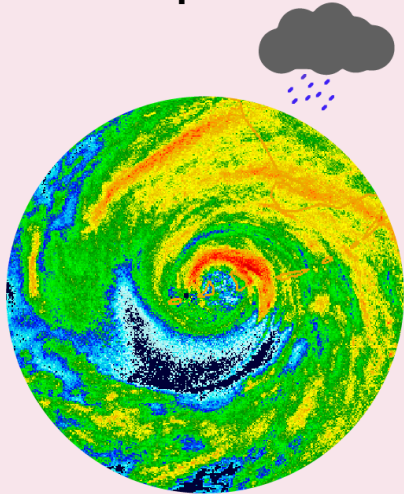


Radar classification

Non-biological

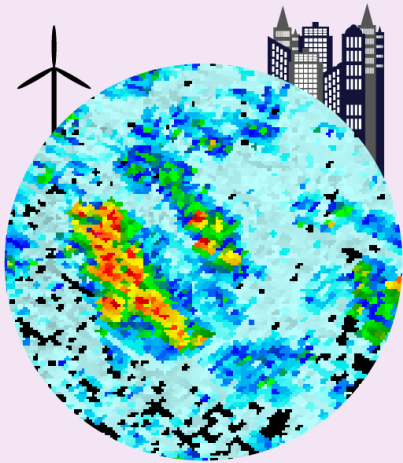
Biological

Precipitation



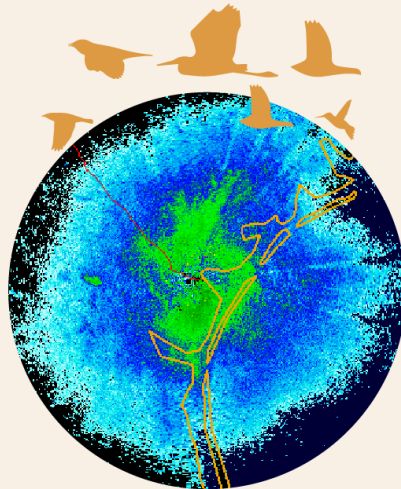
Hurricane

Clutter



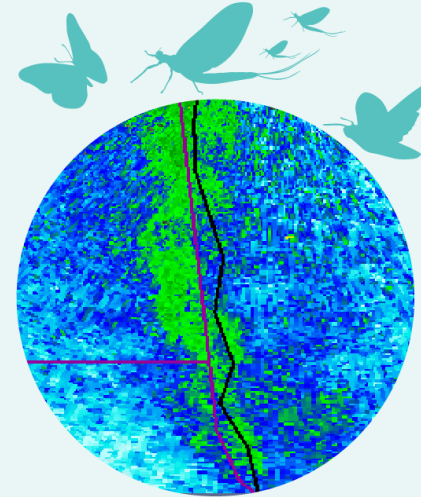
Wind turbine clutter

Birds



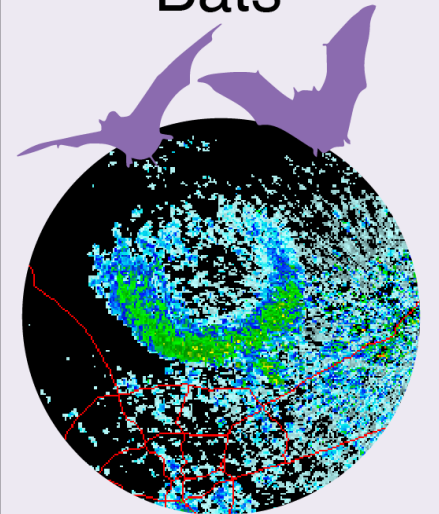
Passage migration

Insects



Mayfly emergence

Bats



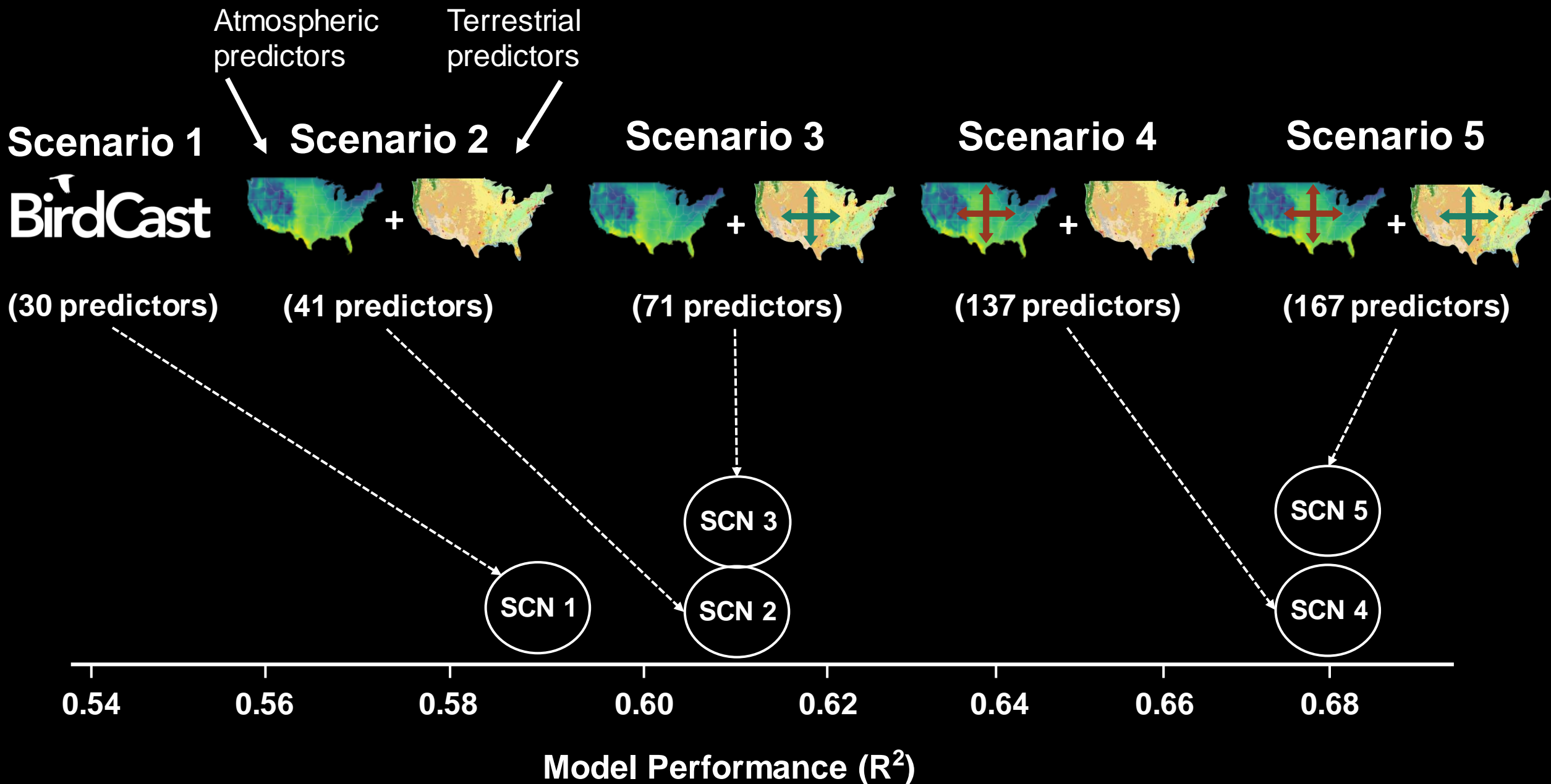
Mexican free-tailed
bat cave emergence

Can we predict these events?

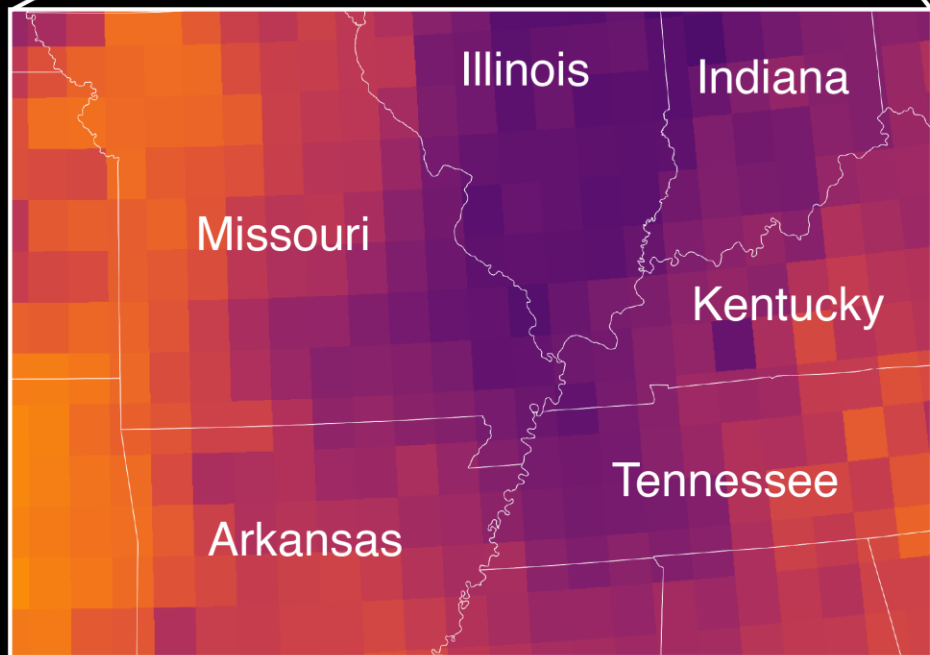
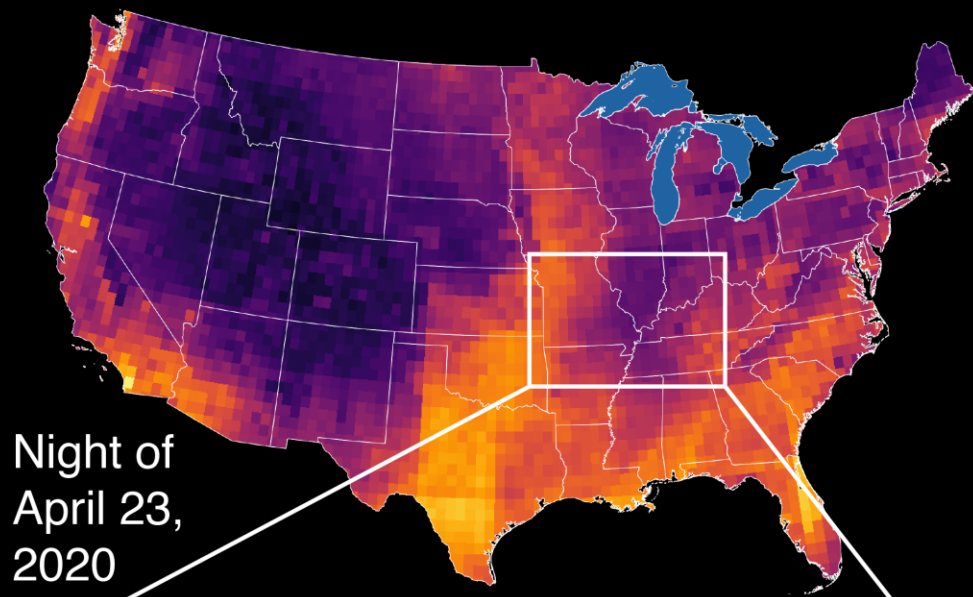
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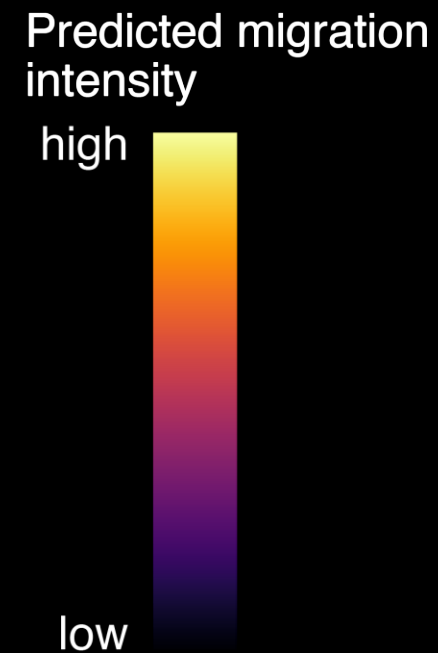
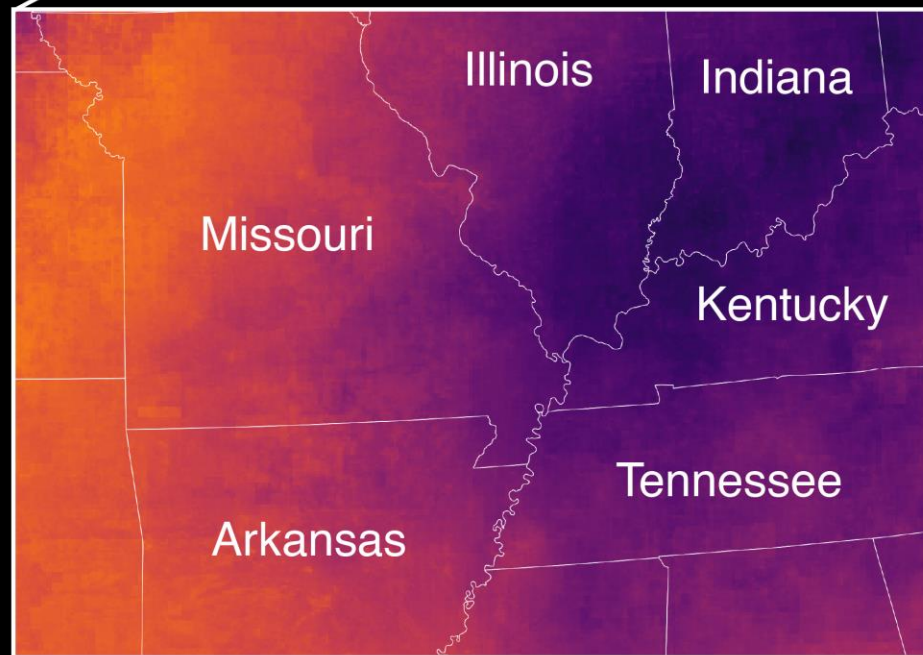
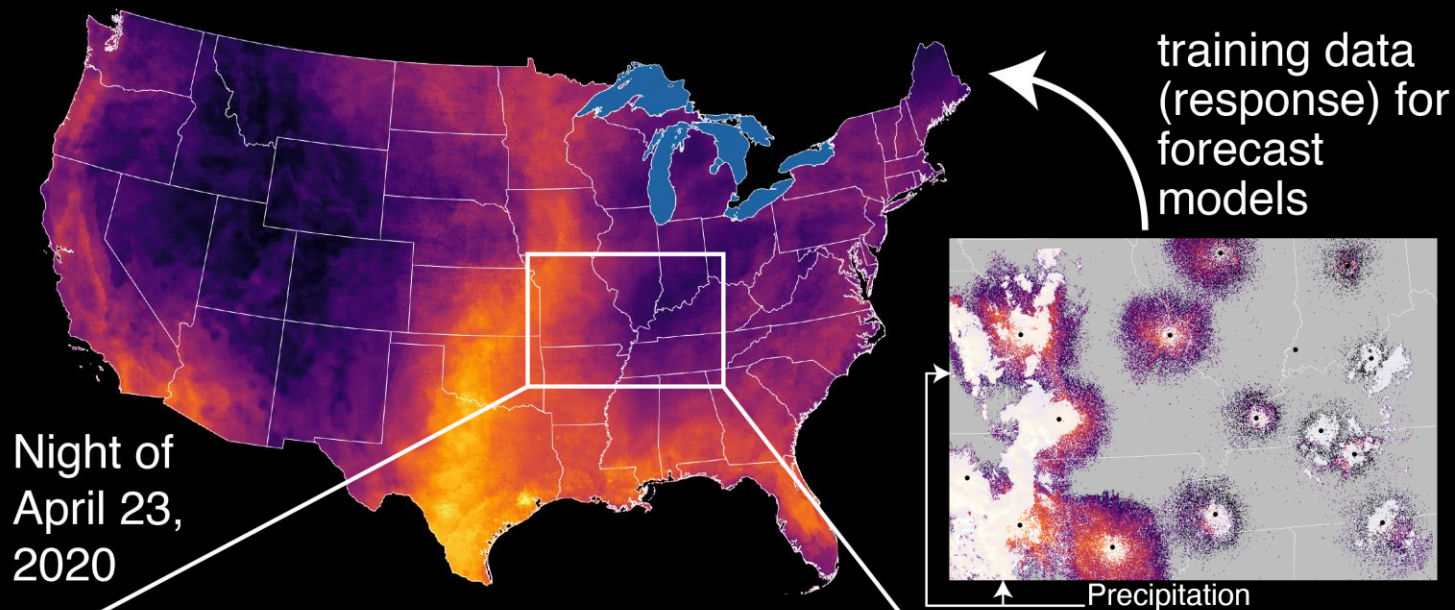


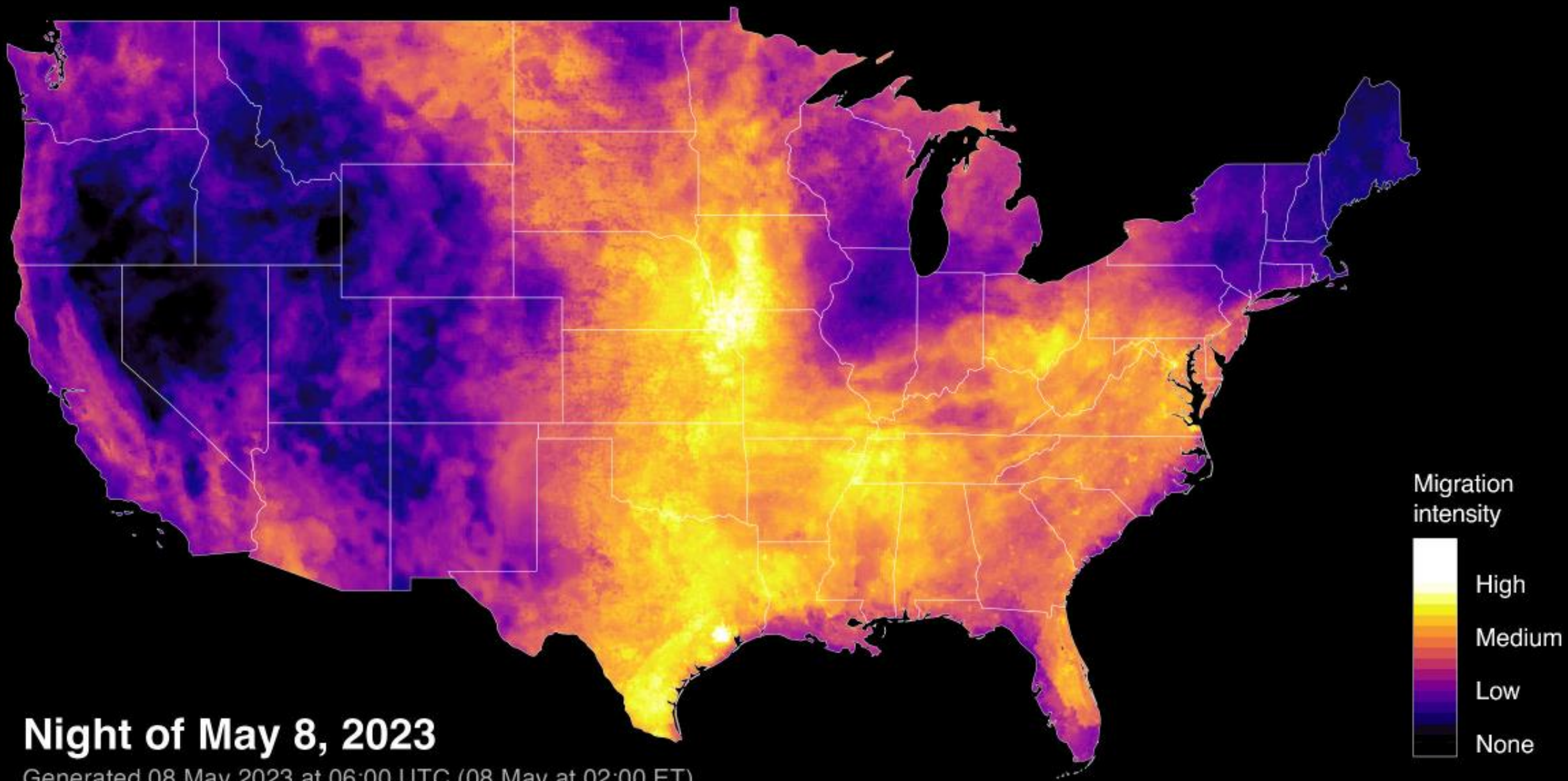


Legacy forecast derived from GFS



Current forecast derived from NAM





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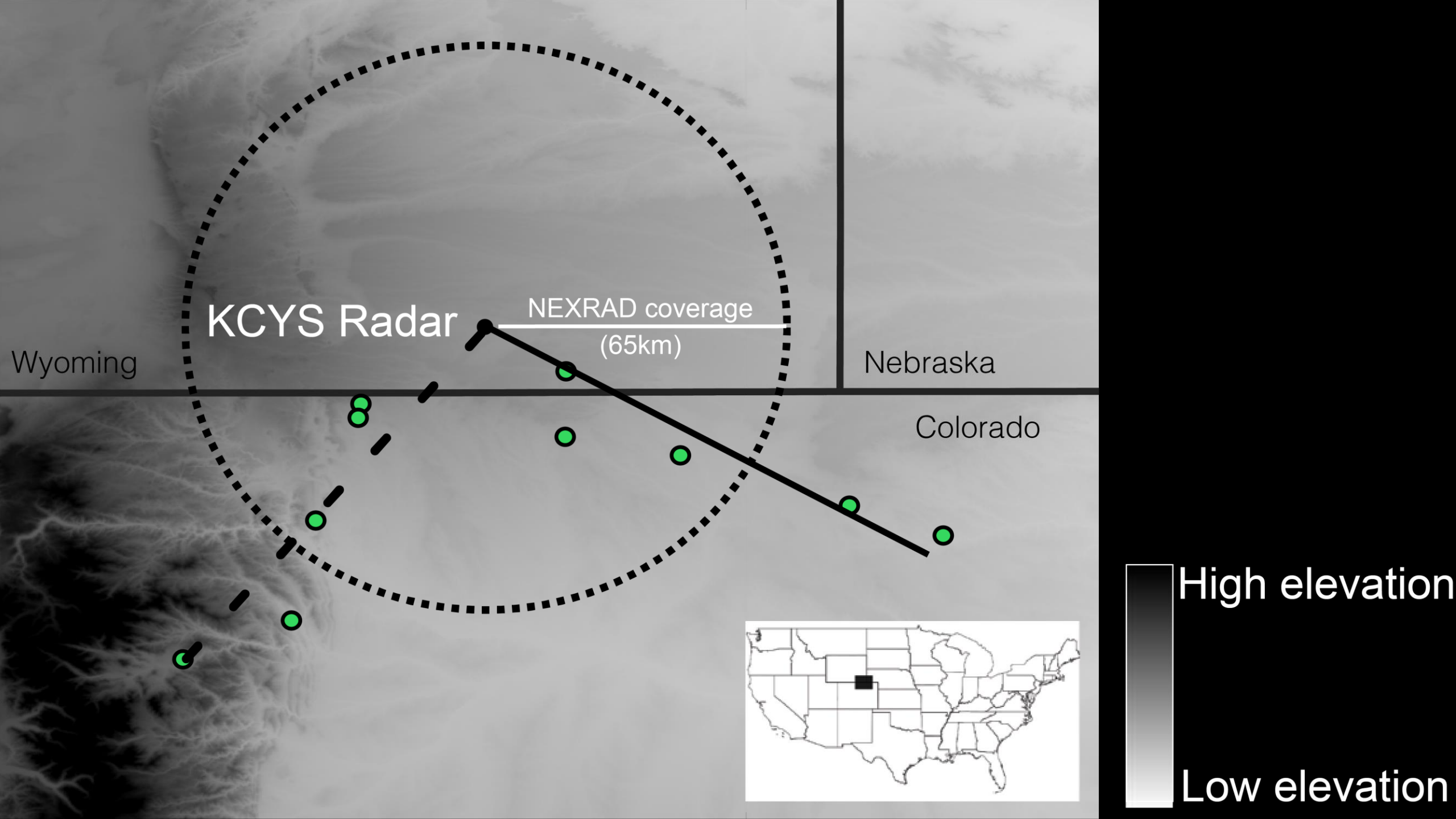


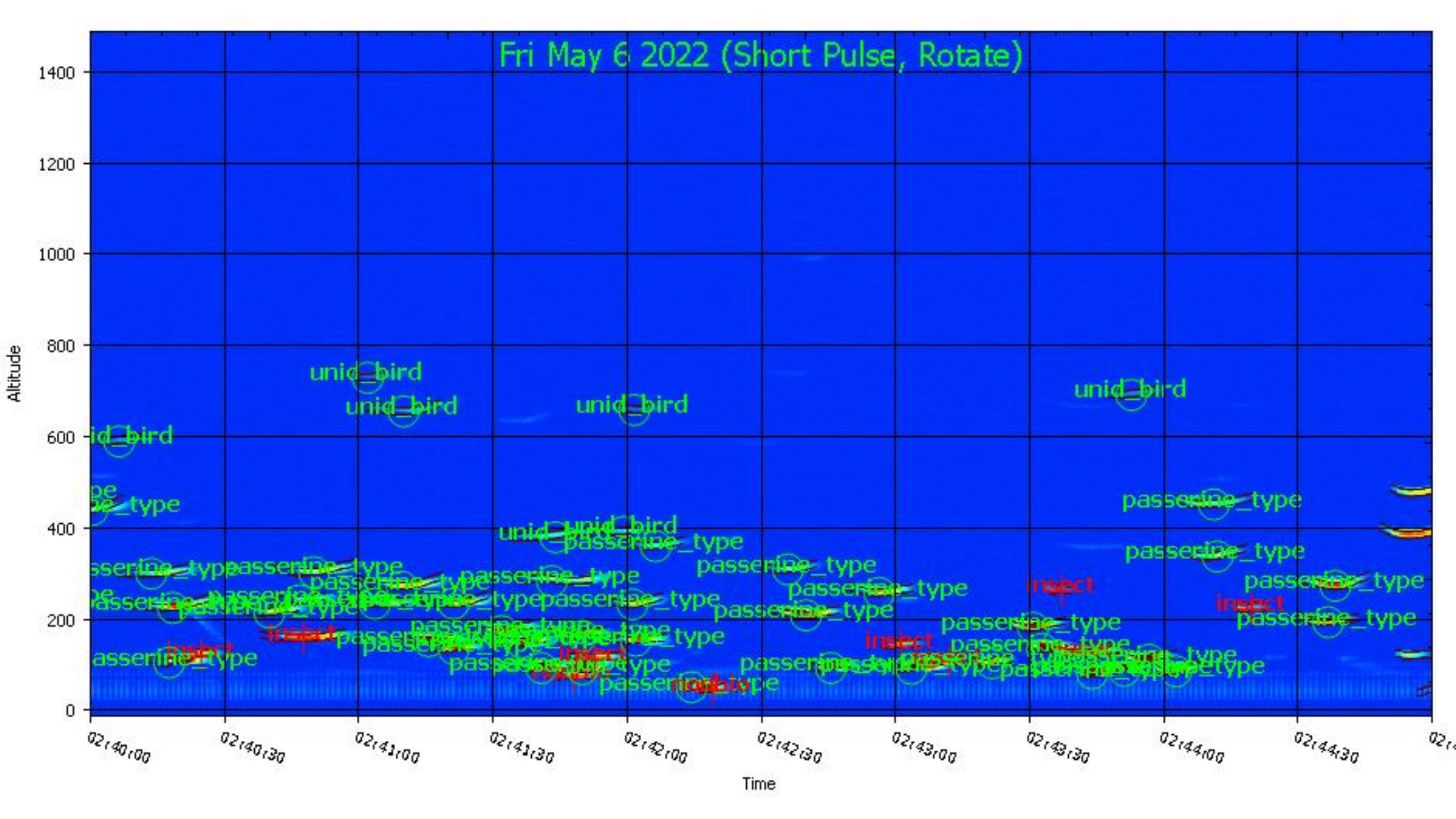


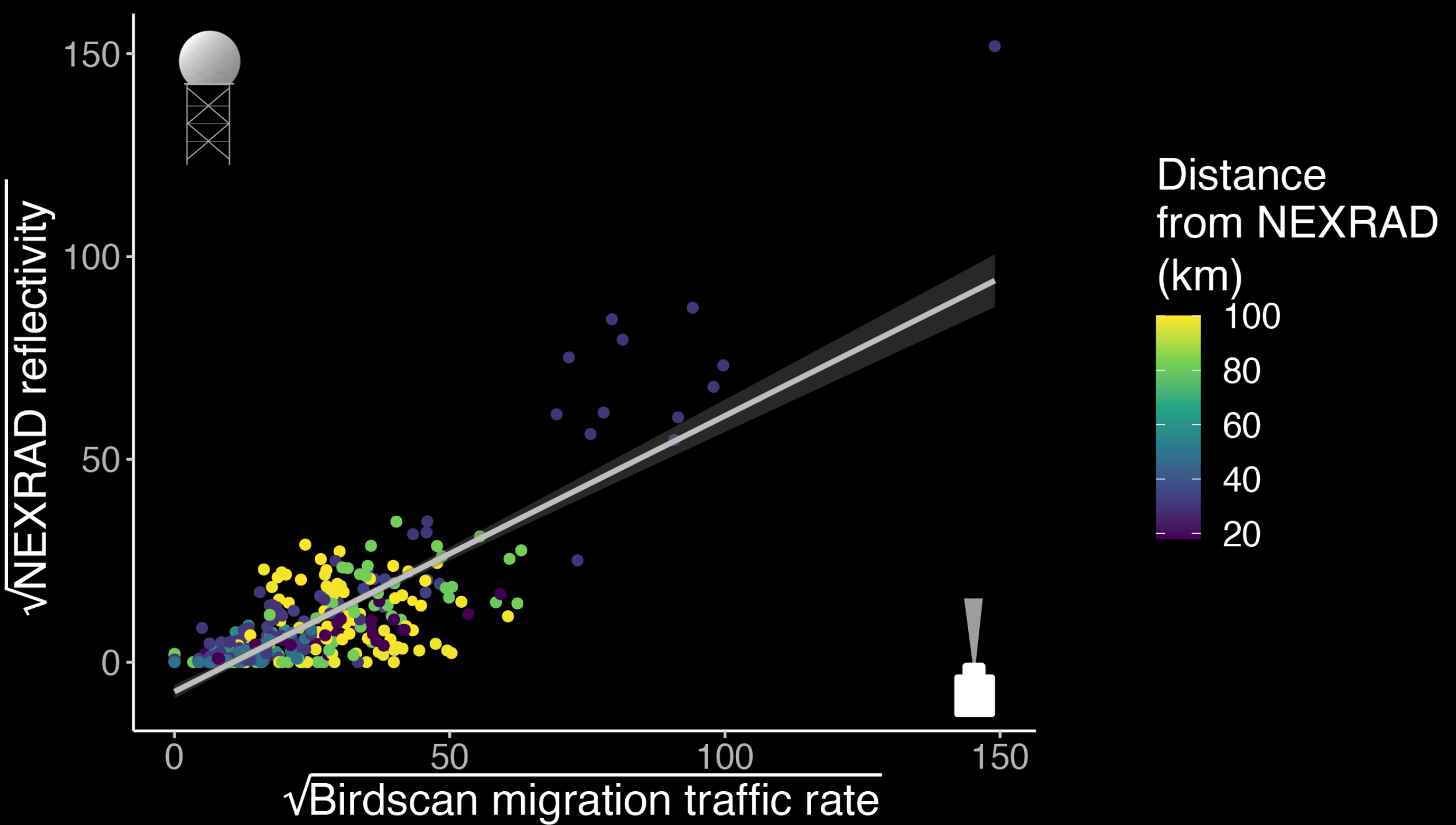
swiss-birdradar.com

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